

REMARKS

The present Amendment is in response to the Office Action mailed June 8, 2010. Claims 1-7 are cancelled, claims 8-11, 14, 17-19, 21-22 and 28-29 are amended and no new claims are added. Claims 8-29 remain pending in view of the above amendments. Applicants note that the following remarks are not intended to be an exhaustive enumeration of the distinctions between any cited references and the claimed invention. Rather, the distinctions identified and discussed below are presented solely by way of example to illustrate some of the differences between the claimed invention and the cited references. Applicants also note that the remarks presented herein have been made merely to clarify the claimed embodiments from elements purported by the Examiner to be taught by the cited reference. Such remarks, or a lack of remarks, are not intended to constitute, and should not be construed as, an acquiescence, on the part of the Applicants: as to the purported teachings or prior art status of the cited references; as to the characterization of the cited references advanced by the Examiner; or as to any other assertions, allegations or characterizations made by the Examiner at any time in this case. Applicants reserve the right to challenge the purported teaching and prior art status of the cited references at any appropriate time. Reconsideration of the application is respectfully requested in view of the above amendments to the claims and the following remarks.

Examiner's Interview

Applicants express their appreciation to the Examiner for conducting an interview on August 26, 2010. The substance of the interview is included in this response.

Rejection Under 35 U.S.C. § 102

The Office Action rejected claims 8-12, 14, 16, 17 and 19-25 under 35 U.S.C. § 102(b) as being anticipated by U.S. Publication No. 2002/0127432 (*Saito*). As tentatively agreed during the interview, the pending claims are patentable over the cited art for at least the reasons set forth herein and discussed during the interview.

Claim 8 is directed to a method for manufacturing a glass substrate for an information recording medium. Claim 8 has been amended to clarify that the steps are performed in an order, beginning with the pre-grinding first washing step.

As discussed during the interview, washing the glass plate in a strong acid washing liquid forms an altered surface layer on an inner portion of the glass plate. A thickness of the altered surface layer is then controlled by the pre-grinding second washing step.

The grinding step then forms a texture in the glass plate. As discussed during the interview, the grinding removes a part of the altered surface layer. The post-grinding washing step then removes a remaining portion of the altered surface layer without affecting the inner portion.

This is illustrated, for example, in Figures 2A and 2B, reproduced below.

Fig.2A

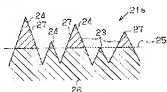
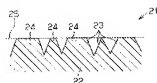


Fig.2B



The texture formed in the grinding step forms projections in the surface. Figure 2B illustrates that part of the projections are in the inner portion of the glass plate (below the line 25) while some of the projections are in the altered surface layer (above the line 25).

The post-grinding washing step removes the projections above the line 25 (as illustrated in Figure 2B). This has the advantage of forming a glass plate or substrate that has both high cleanness and superior smoothness.

The elements recited in claim 8, as arranged in claim 8, are not disclosed in *Saito*. Rather, the focus of *Saito* is to generate a strain in the glass plate. Once the strain is generated, the surface is etched. The roughness of the glass plate, as taught by *Saito*, is "formed based on a difference in the depth of chemical etching between the areas having the processing marks and the areas not having the processing marks." See ¶13.

After forming the processing marks (meaning those surface and near-surface parts in a glass which have a residual permanent strain formed by a mechanical stress without or with a physical change in shape (see ¶12)), the glass plate is then subjected to acid etching (see ¶59). During the etch, the rate of etching is different for portions of the glass that have processing marks and portions that do not have processing marks. This is used to generate the roughness in the glass plate in *Saito*.

For example, Figures 3A-3D set forth this process disclosed in *Saito*. Figure 3A shows a glass plate with a mirror polished surface. Figure 3B illustrates a compressed after grinding i.e., rubbing the glass plate with a slurry. Figure 3C illustrates etching and Figure 3D shows the resulting surface roughness that depends on the etching rate as previously described. See ¶61.

In contrast to these teachings, there is no disclosure in *Saito* of the altered surface layer formed by first and second washings prior to the formation of the texture during the grinding step as recited in claim 8. Nor is there disclosure of finally removing the altered surface layer during the post-grinding washing step as recited in claim 8.

Although *Saito* discloses the possibility of an acid cleaning and an alkali cleaning (see ¶24-25), these cleanings occur after the generating of the strain or after the formatting of the processing marks. Thus, there is no disclosure of first and second pre-grinding washing steps as recited in claim 8.

In addition, because these cleanings occur after the formation of the roughness, there is no disclosure of a grinding step to remove a portion of the altered surface layer formed by the first and second pre-grinding washing steps. Nor is this a disclosure of a grinding step to remove a part of the altered surface layer as recited in claim 8.

For at least these reasons, Applicants respectfully submit that the claims rejected under § 102 are patentable over the cited art.

Rejection Under 35 U.S.C. § 103

The Office Action rejected claims 13, 15 and 26-29 under 35 U.S.C. § 103(a) as being unpatentable over *Saito*. Because claims 8 and 11 are patentable for the reasons discussed herein, the dependent claims 13, 15, and 26-29 are patentable for at least the same reasons.

CONCLUSION

In view of the foregoing, and consistent with the tentative agreement reached during the Examiner Interview, Applicants believe the claims as amended are in allowable form. In the event that the Examiner finds remaining impediment to a prompt allowance of this application that may be clarified through a telephone interview, or which may be overcome by an Examiner's Amendment, the Examiner is requested to contact the undersigned attorney. In view of the recent USPTO initiative regarding compact prosecution, Applicant respectfully invites the Examiner to contact the undersigned at his earliest convenience in the instance that additional impediment exists to the prompt allowance of this case.

Dated September 8, 2010.

Respectfully submitted,

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